

## **UNIT TERMINAL OBJECTIVE**

- 1-1 At the completion of this unit, the EMT-Intermediate student will:
- understand his or her roles and responsibilities within an EMS system, and how these roles and responsibilities differ from other levels of providers.
  - understand the role of medical direction in the out-of-hospital environment.
  - understand and value the importance of personal wellness in EMS and serve as a healthy role model for peers.
  - be able to identify the importance of primary injury prevention activities as an effective way to reduce death, disabilities and health care costs.
  - understand the legal issues that impact decisions made in the out-of-hospital environment.
  - value the role that ethics plays in decision making in the out-of-hospital environment.

## **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 1-1.1 Define the following terms:
- a. EMS Systems
  - b. Certification
  - c. Registration
  - d. Profession
  - e. Professionalism
  - f. Health care professional
  - g. Ethics
  - h. Medical direction
  - i. Protocols
- 1-1.2 Describe the attributes of an EMT-Intermediate as a health care professional.
- 1-1.3 Explain EMT-Intermediate licensure/ certification, recertification, and reciprocity requirements in his or her state.
- 1-1.4 Describe the benefits of EMT-Intermediate continuing education.
- 1-1.5 List current state requirements for EMT-Intermediate education in his/ her state.
- 1-1.6 Describe examples of professional behaviors in the following areas: integrity, empathy, self-motivation, appearance and personal hygiene, self-confidence, communications, time management, teamwork and diplomacy, respect, patient advocacy, and careful delivery of service.
- 1-1.7 Provide examples of activities that constitute appropriate professional behavior for an EMT-Intermediate.
- 1-1.8 Describe how professionalism applies to the EMT-Intermediate while on and off duty.
- 1-1.9 List and explain the primary and additional roles and responsibilities of the EMT-Intermediate.
- 1-1.10 Describe the importance and benefits of quality EMS research to the future of EMS.
- 1-1.11 Describe the role of the EMS physician in providing medical direction.
- 1-1.12 Describe the benefits of medical direction, both on-line and off-line.
- 1-1.13 Describe the relationship between a physician on the scene, the EMT-Intermediate on the scene, and the EMS physician providing on-line medical direction.
- 1-1.14 Describe the components of continuous quality improvement.
- 1-1.14b. Explain the components of wellness for the EMS provider.
- 1-1.15 Discuss the importance of universal precautions and body substance isolation practices and develop strategies to prevent the transmission of diseases.
- 1-1.16 Describe the steps to take for personal protection from airborne and blood borne pathogens.
- 1-1.17 Explain what is meant by an exposure and describe principles for management.
- 1-1.18 Describe the incidence, morbidity and mortality of preventable injury and illness.
- 1-1.19 Identify the human, environmental, and socioeconomic impact of preventable injury and illness.
- 1-1.20 Describe the feasibility of EMS involvement in illness and injury prevention.
- 1-1.21 Develop strategies for the implementation of EMS related illness and injury prevention programs in the community.
- 1-1.22 Identify health hazards and potential crime areas within the community.
- 1-1.23 Identify local municipal and community resources available for physical and socioeconomic crises.
- 1-1.24 Identify the role of EMS in local municipal and community prevention programs.
- 1-1.25 Review legal and ethical responsibilities.
- 1-1.26 Identify and explain the importance of laws pertinent to the EMT-Intermediate.
- 1-1.27 Differentiate between licensure and certification as they apply to the EMT-Intermediate.
- 1-1.28 List the specific problems or conditions encountered while providing care that an EMT-Intermediate is required to report, and identify in each instance to whom the report is to be made.
- 1-1.29 Review the following terms:
- a. Abandonment

- b. Advance directives
- c. Assault
- d. Battery
- e. Breach of duty
- f. Confidentiality
- g. Consent (expressed, implied, informed, involuntary)
- h. Do not resuscitate (DNR) orders
- i. Duty to act
- j. Emancipated minor
- k. False imprisonment
- l. Immunity
- m. Liability
- n. Libel
- o. Minor
- p. Negligence
- q. Proximate cause
- r. Scope of practice
- s. Slander
- t. Standard of care
- u. Tort

- 1-1.30 Differentiate between the scope of practice and the standard of care for EMT-Intermediate practice.
- 1-1.31 Discuss the concept of medical direction and its relationship to the standard of care of an EMT-Intermediate.
- 1-1.32 Review the four elements that must be present in order to prove negligence.
- 1-1.33 Given a scenario in which a patient is injured while an EMT-Intermediate is providing care, determine whether the four components of negligence are present.
- 1-1.34 Given a scenario, demonstrate patient care behaviors that would protect the EMT-Intermediate from claims of negligence.
- 1-1.35 Explain the concept of liability as it might apply to EMT-Intermediate practice, including physicians providing medical direction and EMT-Intermediate supervision of other care providers.
- 1-1.36 Review the legal concept of immunity, including Good Samaritan statutes and governmental immunity, as it applies to the EMT-Intermediate.
- 1-1.37 Review the importance and necessity of patient confidentiality and the standards for maintaining patient confidentiality which apply to the EMT-Intermediate.
- 1-1.38 Review the steps to take if a patient refuses care.
- 1-1.39 Identify the legal issues involved in the decision not to transport a patient, or to reduce the level of care being provided during transportation.
- 1-1.40 Review the conditions under which the use of force, including restraint, is acceptable.
- 1-1.41 Explain the purpose of advance directives relative to patient care and how the EMT-Intermediate should care for a patient who is covered by an advance directive.
- 1-1.42 Discuss the responsibilities of the EMT-Intermediate relative to resuscitation efforts for patients who are potential organ donors.
- 1-1.43 Review the importance of providing accurate documentation (oral and written) in substantiating an incident.
- 1-1.44 Review the characteristics of a patient care report required to make it an effective legal document.
- 1-1.45 Review the premise which should underlie the EMT-Intermediate's ethical decisions in out-of-hospital care.
- 1-1.46 Review the relationship between the law and ethics in EMS.
- 1-1.47 Identify the issues surrounding the use of advance directives in making an out-of-hospital resuscitation decision.
- 1-1.48 Describe the criteria necessary to honor an advance directive in your state.

## **AFFECTIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 1-1.49 Serve as a role model for others relative to professionalism in EMS.
- 1-1.50 Value the need to serve as the patient advocate inclusive of those with special needs, alternate life styles and cultural diversity.
- 1-1.51 Defend the importance of continuing medical education and skills retention.
- 1-1.52 Advocate the need for supporting and participating in research efforts aimed at improving EMS systems.
- 1-1.53 Assess personal attitudes and demeanor that may distract from professionalism.
- 1-1.54 Advocate the need for injury prevention, including abusive situations.
- 1-1.55 Exhibit professional behaviors in the following areas: integrity, empathy, self-motivation, appearance and personal hygiene, self-confidence, communications, time management, teamwork and diplomacy, respect, patient advocacy, and careful delivery of service.
- 1-1.56 Advocate the benefits of working toward the goal of total personal wellness.

- 1-1.57 Serve as a role model for other EMS providers in regard to a total wellness lifestyle.
- 1-1.58 Value the need to assess his/ her own lifestyle.
- 1-1.59 Challenge him/ herself to teach wellness concept in his/ her role as an EMT-Intermediate.
- 1-1.60 Defend the need to treat each patient as an individual, with respect and dignity.
- 1-1.61 Assess his/ her own prejudices related to the various aspects of cultural diversity.
- 1-1.62 Improve personal physical well-being through achieving and maintaining proper body weight, regular exercise and proper nutrition.
- 1-1.63 Defend the need to respect the emotional needs of dying patients and their families.
- 1-1.64 Advocate and practice the use of personal safety precautions in all scene situations.
- 1-1.65 Advocate and serve as a role model for other EMS providers relative to body substance isolation practices.
- 1-1.66 Value and defend tenets of prevention for patients and communities being served.
- 1-1.67 Value personal commitment to success of prevention programs.
- 1-1.68 Advocate the need to show respect for the rights and feelings of patients.
- 1-1.69 Assess his/ her personal commitment to protecting patient confidentiality.
- 1-1.70 Defend personal beliefs about withholding or stopping patient care.
- 1-1.71 Defend the value of advance medical directives.
- 1-1.72 Reinforce the patient's autonomy in the decision-making process.
- 1-1.73 Given a scenario, defend an EMT-Intermediate's actions in a situation where a physician orders therapy the EMT-Intermediate feels to be detrimental to the patient's best interests.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 1-1.74 Demonstrate the proper procedures to take for personal protection from disease.

### **UNIT TERMINAL OBJECTIVE**

- 1-3 At the completion of this unit, the EMT-Intermediate student will be able to understand the basic principles of pharmacology and be able to develop a drug profile for common emergency medications.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 1-3.1 Review the specific anatomy and physiology pertinent to pharmacology.
- 1-3.2 Discuss the standardization of drugs.
- 1-3.3 Differentiate among the chemical, generic (nonproprietary), and trade (proprietary) names of a drug.
- 1-3.4 List the four main sources of drug products.
- 1-3.5 Describe how drugs are classified.
- 1-3.6 List the authoritative sources for drug information.
- 1-3.7 Discuss special consideration in drug treatment with regard to pregnant, pediatric and geriatric patients.
- 1-3.8 Discuss the EMT-Intermediate's responsibilities and scope of management pertinent to the administration of medications.
- 1-3.9 List and describe general properties of drugs.
- 1-3.10 List and describe liquid, solid, and gas drug forms.
- 1-3.11 List and differentiate routes of drug administration.
- 1-3.12 Differentiate between enteral and parenteral routes of drug administration.
- 1-3.13 Describe mechanisms of drug action.
- 1-3.14 List and differentiate the phases of drug activity, including the pharmaceutical, pharmacokinetic, and pharmacodynamic phases.
- 1-3.15 Describe pharmacokinetics, pharmacodynamics, theories of drug action, drug-response relationship, factors altering drug responses, predictable drug responses, iatrogenic drug responses, and unpredictable adverse drug responses.
- 1-3.16 Discuss considerations for storing drugs.
- 1-3.17 List the components of a drug profile. (C-1 )
- 1-3.18 List and describe drugs which the EMT-Intermediate may administer in a pharmacological management plan according to local protocol. (These drugs are limited to:
  - Activated Charcoal
  - Albuterol
  - Aspirin
  - D50
  - Epinephrine 1:1000
  - Epinephrine 1:10,000
  - Lidocaine (ONLY for pulseless v-tach/v-fib after administration of epinephrine)

- Morphine
- Narcan
- Nitroglycerine

1-3.19 Discuss procedures and measures to ensure security of controlled substances the EMT-Intermediate may administer.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

1-3.20 Defend medication administration by an EMT-Intermediate to effect positive therapeutic affect.

### **PSYCHOMOTOR OBJECTIVES**

None identified for this unit.

### **UNIT TERMINAL OBJECTIVE**

1-4 At the completion of this unit, the EMT-Intermediate student will be able to safely and precisely access the venous circulation and administer medications.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 1-4.1 Review the specific anatomy and physiology pertinent to medication administration.
- 1-4.2 Review mathematical principles.
- 1-4.3 Review mathematical equivalents.
- 1-4.4 Differentiate temperature readings between the Centigrade and Fahrenheit scales.
- 1-4.5 Discuss formulas as a basis for performing drug calculations.
- 1-4.6 Calculate oral and parenteral drug dosages for all emergency medications administered to adults, infants and children.
- 1-4.7 Calculate intravenous infusion rates for adults, infants, and children.
- 1-4.8 Discuss legal aspects affecting medication administration.
- 1-4.9 Discuss the "six rights" of drug administration and correlate these with the principles of medication administration.
- 1-4.10 Discuss medical asepsis and the differences between clean and sterile techniques.
- 1-4.11 Describe use of antiseptics and disinfectants.
- 1-4.12 Describe the use of universal precautions and body substance isolation (BSI) procedures when administering a medication.
- 1-4.13 Describe the indications, equipment needed, techniques utilized, precautions, and general principles of peripheral venous cannulation.
- 1-4.14 Describe the indications, equipment needed, techniques utilized, precautions, and general principles of intraosseous needle placement and infusion.
- 1-4.15 Describe the indications, equipment needed, techniques utilized, precautions, and general principles of administering medications by the inhalation route.
- 1-4.16 Differentiate among the different dosage forms of oral medications.
- 1-4.17 Describe the equipment needed and general principles of administering oral medications.
- 1-4.18 Describe the indications, equipment needed, techniques utilized, precautions, and general principles of rectal medication administration.
- 1-4.19 Differentiate among the different parenteral routes of medication administration.
- 1-4.20 Describe the equipment needed, techniques utilized, complications, and general principles for the preparation and administration of parenteral medications.
- 1-4.21 Differentiate among the different percutaneous routes of medication administration.
- 1-4.22 Describe the purpose, equipment needed, techniques utilized, complications, and general principles for obtaining a blood sample.
- 1-4.23 Describe disposal of contaminated items and sharps.
- 1-4.24 Synthesize a pharmacologic management plan including medication administration.
- 1-4.25 Integrate pathophysiological principles of medication administration with patient management.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 1-4.26 Comply with EMT-Intermediate standards of medication administration.
- 1-4.27 Comply with universal precautions and body substance isolation (BSI).

- 1-4.28 Defend a pharmacologic management plan for medication administration.
- 1-4.29 Serve as a model for medical asepsis.
- 1-4.30 Serve as a model for advocacy while performing medication administration.
- 1-4.31 Serve as a model for disposing of contaminated items and sharps.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 1-4.32 Use universal precautions and body substance isolation (BSI) procedures during medication administration.
- 1-4.33 Demonstrate cannulation of peripheral veins.
- 1-4.34 Demonstrate intraosseous needle placement and infusion.
- 1-4.35 Demonstrate clean technique during medication administration.
- 1-4.36 Demonstrate administration of medications by the inhalation route.
- 1-4.37 Demonstrate administration of oral medications.
- 1-4.38 Demonstrate rectal administration of medications.
- 1-4.39 Demonstrate preparation and administration of parenteral medications.
- 1-4.40 Demonstrate preparation and techniques for obtaining a blood sample.
- 1-4.41 Perfect disposal of contaminated items and sharps.

### **UNIT TERMINAL OBJECTIVE**

- 2-1 At the completion of this unit, the EMT-Intermediate student will be able to establish and/ or maintain a patent airway, oxygenate, and ventilate a patient.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 2-1.1 Explain the primary objective of airway maintenance.
- 2-1.2 Identify commonly neglected prehospital skills related to airway.
- 2-1.3 Identify the anatomy and functions of the upper airway.
- 2-1.4 Describe the anatomy and functions of the lower airway.
- 2-1.5 Explain the differences between adult and pediatric airway anatomy.
- 2-1.6 Define normal tidal volumes for the adult, child, and infant.
- 2-1.7 Define atelectasis.
- 2-1.8 Define  $\text{FiO}_2$ .
- 2-1.9 Explain the relationship between pulmonary circulation and respiration.
- 2-1.10 List factors which cause decreased oxygen concentrations in the blood.
- 2-1.11 List the factors which increase and decrease carbon dioxide production in the body.
- 2-1.12 Describe the measurement of oxygen in the blood.
- 2-1.13 Describe the measurement of carbon dioxide in the blood.
- 2-1.14 List the concentration of gases which comprise atmospheric air.
- 2-1.15 List the factors which affect respiratory rate and depth.
- 2-1.16 Describe the voluntary and involuntary regulation of respiration.
- 2-1.17 Describe causes of upper airway obstruction.
- 2-1.18 Define normal respiratory rates for adult, child, and infant.
- 2-1.19 Describe causes of respiratory distress.
- 2-1.20 Define and differentiate between hypoxia and hypoxemia.
- 2-1.21 Define pulsus paradoxus.
- 2-1.22 Describe the modified forms of respiration.
- 2-1.23 Define gag reflex.
- 2-1.24 Explain safety considerations of oxygen storage and delivery.
- 2-1.25 Identify types of oxygen cylinders and pressure regulators (including a high-pressure regulator and a therapy regulator).
- 2-1.26 List the steps for delivering oxygen from a cylinder and regulator.
- 2-1.27 Describe the indications, contraindications, advantages, disadvantages, complications, liter flow range, and concentration of delivered oxygen for supplemental oxygen delivery devices.
- 2-1.28 Describe the use, advantages and disadvantages of an oxygen humidifier.
- 2-1.29 Define, identify and describe a tracheostomy, stoma, and tracheostomy tube.
- 2-1.30 Explain the risk of infection to EMS providers associated with ventilation.
- 2-1.31 Describe the indications, contraindications, advantages, disadvantages, complications, and technique for ventilating a patient by:
  - a) Mouth-to-mouth

- b) Mouth-to-nose
- c) Mouth-to-mask
- d) One person bag-valve-mask
- e) Two person bag-valve-mask
- f) Three person bag-valve-mask
- g) Flow-restricted, oxygen-powered ventilation device

2-1.32 Explain the advantage of the two person method when ventilating with the bag-valve-mask.

2-1.33 Describe indications, contraindications, advantages, disadvantages, complications, and technique for ventilating a patient with an automatic transport ventilator (ATV).

2-1.34 Describe the Sellick (cricoid pressure) maneuver.

2-1.35 Describe the use of cricoid pressure during intubation.

2-1.36 Compare the ventilation techniques used for an adult patient to those used for pediatric patients.

2-1.37 Define how to ventilate a patient with a stoma, including mouth-to-stoma and bag-valve-mask-to-stoma ventilation.

2-1.38 Define complete airway obstruction.

2-1.39 Define and explain the implications of partial airway obstruction with good and poor air exchange.

2-1.40 Describe complete airway obstruction maneuvers.

2-1.41 Describe laryngoscopy for the removal of a foreign body airway obstruction.

2-1.42 Identify types of suction catheters, including hard or rigid catheters and soft catheters.

2-1.43 Explain the purpose for suctioning the upper airway.

2-1.44 Identify types of suction equipment.

2-1.45 Describe the indications for suctioning the upper airway.

2-1.46 Identify techniques of suctioning the upper airway.

2-1.47 Identify special considerations of suctioning the upper airway.

2-1.48 Describe the technique of tracheobronchial suctioning in the intubated patient.

2-1.49 Define gastric distention.

2-1.50 Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique for inserting a nasogastric tube and orogastric tube.

2-1.51 Describe manual airway maneuvers.

2-1.52 Describe the use of an oral and nasal airway.

2-1.53 Describe the indications, contraindications, advantages, disadvantages, complications, and technique for inserting an oropharyngeal and nasopharyngeal airway

2-1.54 Differentiate endotracheal intubation from other methods of advanced airway management.

2-1.55 Describe the indications, contraindications, advantages, disadvantages and complications of endotracheal intubation.

2-1.56 Describe the visual landmarks for direct laryngoscopy.

2-1.57 Describe the methods of assessment for confirming correct placement of an endotracheal tube.

2-1.58 Describe methods for securing an endotracheal tube.

2-1.59 Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique for extubation.

2-1.60 Describe methods of endotracheal intubation in the pediatric patient.

2-1.61 Describe the indications, contraindications, advantages, disadvantages, complications, equipment, and technique for using a dual lumen airway.

2-1.62 Define, identify, and describe a laryngectomy.

2-1.63 Describe the special considerations in airway management and ventilation for patients with facial injuries.

2-1.64 Describe the special considerations in airway management and ventilation for the pediatric patient.

## **AFFECTIVE OBJECTIVES**

At the completion of this unit, the intermediate student will be able to:

2-1.65 Defend oxygenation and ventilation.

2-1.66 Defend the necessity of establishing and/ or maintaining patency of a patient's airway.

2-1.67 Comply with standard precautions to defend against infectious and communicable diseases.

## **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

2-1.68 Perform body substance isolation (BSI) procedures during basic airway management, advanced airway management, and ventilation.

2-1.69 Perform pulse oximetry.

2-1.70 Perform end-tidal CO<sub>2</sub> detection.

2-1.71 Perform oxygen delivery from a cylinder and regulator with an oxygen delivery device.

2-1.72 Deliver supplemental oxygen to a breathing patient using the following devices: nasal cannula, simple facemask,



- partial rebreather mask, non-rebreather mask, and venturi mask.
- 2-1.73 Perform oxygen delivery with an oxygen humidifier.
- 2-1.74 Perform medication administration with an in-line small-volume nebulizer.
- 2-1.75 Demonstrate ventilating a patient by the following techniques:
- a. Mouth-to-mask ventilation
  - a) One person bag-valve-mask
  - b) Two person bag-valve-mask
  - c) Three person bag-valve-mask
  - d) Flow-restricted, oxygen-powered ventilation device
  - e) Automatic transport ventilator
  - f) Mouth-to-stoma
  - g) Bag-valve-mask-to-stoma ventilation
- 2-1.76 Perform the Sellick maneuver (cricoid pressure).
- 2-1.77 Ventilate a pediatric patient using the one and two person techniques.
- 2-1.78 Perform complete airway obstruction maneuvers, including:
- a. Heimlich maneuver
  - b. Finger sweep
  - c. Chest thrusts
  - d. Removal with Magill forceps
- 2-1.79 Perform retrieval of foreign bodies from the upper airway.
- 2-1.80 Demonstrate suctioning the upper airway by selecting a suction device, catheter and technique.
- 2-1.81 Perform tracheobronchial suctioning in the intubated patient by selecting a suction device, catheter and technique.
- 2-1.82 Demonstrate insertion of a nasogastric tube.
- 2-1.83 Demonstrate insertion of an orogastric tube.
- 2-1.84 Perform gastric decompression by selecting a suction device, catheter and technique.
- 2-1.85 Perform manual airway maneuvers, including:
- a. Opening the mouth
  - b. Head-tilt/ chin-lift maneuver
  - c. Jaw-thrust without head-tilt maneuver
  - d. Modified jaw-thrust maneuver
- 2-1.86 Perform manual airway maneuvers for pediatric patients, including:
- a. Opening the mouth
  - b. Head-tilt/ chin-lift maneuver
  - c. Jaw-thrust without head-tilt maneuver
  - d. Modified jaw-thrust maneuver
- 2-1.87 Demonstrate insertion of an oropharyngeal airway.
- 2-1.88 Demonstrate insertion of a nasopharyngeal airway.
- 2-1.89 Intubate the trachea by direct orotracheal intubation.
- 2-1.90 Perform assessment to confirm correct placement of the endotracheal tube.
- 2-1.91 Adequately secure an endotracheal tube.
- 2-1.92 Perform extubation.
- 2-1.93 Perform endotracheal intubation in the pediatric patient.
- 2-1.94 Insert a dual lumen airway.
- 2-1.95 Perform stoma suctioning.
- 2-1.96 Perform replacement of a tracheostomy tube through a stoma.

### **UNIT TERMINAL OBJECTIVE**

- 3-2 At the completion of this unit, the EMT-Intermediate student will be able to explain the significance of physical exam findings commonly found in emergency situations.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 3-2.1 Define the terms inspection, palpation, percussion, auscultation. (C-1)
- 3-2.2 Describe the techniques of inspection, palpation, percussion, and auscultation. (C-1)
- 3-2.3 Review the procedure for taking and significance of vital signs (pulse, respiration, and blood pressure.) (C-2)
- 3-2.4 Describe the evaluation of mental status. (C-1)
- 3-2.5 Evaluate the importance of a general survey. (C-3)
- 3-2.6 Describe the examination of skin and nails. (C-1)
- 3-2.7 Differentiate normal and abnormal findings of the assessment of the skin. (C-3)
- 3-2.8 Distinguish the importance of abnormal findings of the assessment of the skin. (C-3)
- 3-2.9 Describe the normal and abnormal assessment findings of the head (including the scalp, skull, face and skin). (C-

1)

- 3-2.10 Describe the examination of the head (including the scalp, skull, face, and skin). (C-1)
- 3-2.11 Describe the examination of the eyes. (C-1)
- 3-2.12 Distinguish between normal and abnormal assessment findings of the eyes. (C-3)
- 3-2.13 Describe the examination of the ears. (C-1)
- 3-2.14 Differentiate normal and abnormal assessment findings of the ears. (C-3)
- 3-2.15 Describe the examination of the nose. (C-1)
- 3-2.16 Differentiate normal and abnormal assessment findings of the nose. (C-3)
- 3-2.17 Describe the examination of the mouth and pharynx. (C-1)
- 3-2.18 Differentiate normal and abnormal assessment findings of the mouth and pharynx. (C-3)
- 3-2.19 Describe the examination of the neck and cervical spine. (C-1)
- 3-2.20 Differentiate normal and abnormal assessment findings the neck and cervical spine. (C-3)
- 3-2.21 Describe the inspection, palpation, percussion, and auscultation of the chest. (C-1)
- 3-2.22 Describe the examination of the thorax and ventilation. (C-1)
- 3-2.23 Describe the examination of the anterior and posterior chest. (C-1)
- 3-2.24 Differentiate the percussion sounds and their characteristics. (C-3)
- 3-2.25 Differentiate the characteristics of breath sounds. (C-3)
- 3-2.26 Differentiate normal and abnormal assessment findings of the chest examination. (C-3)
- 3-2.27 Describe the examination of the arterial pulse including rate, rhythm, and amplitude. (C-1)
- 3-2.28 Distinguish normal and abnormal findings of arterial pulse. (C-3)
- 3-2.29 Describe the assessment of jugular venous pressure and pulsations. (C-1)
- 3-2.30 Distinguish normal and abnormal examination findings of jugular venous pressure and pulsations. (C-3)
- 3-2.31 Describe the examination of the heart. (C-1)
- 3-2.32 Differentiate normal and abnormal assessment findings of the heart. (C-3)
- 3-2.33 Describe the auscultation of the heart. (C-1)
- 3-2.34 Differentiate the characteristics of normal and abnormal findings associated with the auscultation of the heart. (C-3)
- 3-2.35 Describe the examination of the abdomen. (C-1)
- 3-2.36 Differentiate normal and abnormal assessment findings of the abdomen. (C-3)
- 3-2.37 Describe the examination of the female external genitalia. (C-1)
- 3-2.38 Differentiate normal and abnormal assessment findings of the female external genitalia. (C-3)
- 3-2.39 Describe the examination of the male genitalia. (C-1)
- 3-2.40 Differentiate normal and abnormal findings of the male genitalia. (C-3)
- 3-2.41 Describe the examination of the extremities. (C-1)
- 3-2.42 Differentiate normal and abnormal findings of the extremities. (C-3)
- 3-2.43 Describe the examination of the peripheral vascular system. (C-1)
- 3-2.44 Differentiate normal and abnormal findings of the peripheral vascular system. (C-3)
- 3-2.45 Describe the examination of the nervous system. (C-1)
- 3-2.46 Differentiate normal and abnormal findings of the nervous system. (C-3)
- 3-2.47 Discuss the considerations of examination of an infant or child. (C-1)
- 3-2.48 Describe the general guidelines of recording examination information. (C-1)

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 3-2.49 Demonstrate a caring attitude when performing physical examination skills. (A-3)
- 3-2.50 Discuss the importance of a professional appearance and demeanor when performing physical examination skills. (A-1)
- 3-2.51 Appreciate the limitations of conducting a physical exam in the out-of-hospital environment. (A-2)

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 3-2.52 Demonstrate the examination of skin and nails. (P-2)
- 3-2.53 Demonstrate the examination of the head and neck. (P-2)
- 3-2.54 Demonstrate the examination of the eyes. (P-2)
- 3-2.55 Demonstrate the examination of the ears. (P-2)
- 3-2.56 Demonstrate the examination of the nose. (P-2)
- 3-2.57 Demonstrate the examination of the mouth. (P-2)
- 3-2.58 Demonstrate the examination of the neck. (P-2)
- 3-2.59 Demonstrate the examination of the thorax and ventilation. (P-2)
- 3-2.60 Demonstrate the examination of the anterior and posterior chest. (P-2)



- 3-2.61 Demonstrate auscultation of the chest. (P-2)
- 3-2.62 Demonstrate percussion of the chest. (P-2)
- 3-2.63 Demonstrate the examination of the arterial pulse including location, rate, rhythm, and amplitude. (P-2)
- 3-2.64 Demonstrate the assessment of jugular venous pressure and pulsations. (P-2)
- 3-2.65 Demonstrate the examination of the heart. (P-2)
- 3-2.66 Demonstrate the examination of the abdomen. (P-2)
- 3-2.67 Demonstrate auscultation of the abdomen. (P-2)
- 3-2.68 Demonstrate the external visual examination of the female external genitalia. (P-2)
- 3-2.69 Demonstrate the examination of the male genitalia. (P-2)
- 3-2.70 Demonstrate the examination of the peripheral vascular system. (P-2)
- 3-2.71 Demonstrate the examination of the extremities. (P-2)
- 3-2.72 Demonstrate the examination of the nervous system. (P-2)

### **UNIT TERMINAL OBJECTIVE**

- 3-3 At the completion of this unit, the EMT-Intermediate student will be able to integrate the principles of history taking and techniques of physical exam to perform patient assessment on an emergency patient.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 3-3.1 Recognize hazards/ potential hazards.
- 3-3.2 Describe common hazards found at the scene of a trauma and a medical patient.
- 3-3.3 Determine hazards found at the scene of a medical or trauma patient.
- 3-3.4 Differentiate safe from unsafe scenes.
- 3-3.5 Describe methods to making an unsafe scene safe.
- 3-3.6 Discuss common mechanisms of injury/ nature of illness.
- 3-3.7 Recognize the importance of determining the mechanism of injury.
- 3-3.8 Discuss the reason for identifying the total number of patients at the scene.
- 3-3.9 Organize the management of a scene following size-up.
- 3-3.10 Explain the reasons for identifying the need for additional help or assistance.
- 3-3.11 Summarize the reasons for forming a general impression of the patient.
- 3-3.12 Discuss methods of assessing mental status.
- 3-3.13 Categorize levels of consciousness.
- 3-3.14 Discuss methods of assessing the airway.
- 3-3.15 Describe why the cervical spine is immobilized during the assessment of the trauma patient.
- 3-3.16 Analyze a scene to determine if spinal precautions are required.
- 3-3.17 Describe methods used for assessing if a patient is breathing.
- 3-3.18 Differentiate between a patient with adequate and inadequate minute ventilation.
- 3-3.19 Discuss the need for assessing the patient for external bleeding.
- 3-3.20 Describe normal and abnormal findings when assessing skin color.
- 3-3.21 Describe normal and abnormal findings when assessing skin temperature.
- 3-3.22 Describe normal and abnormal findings when assessing skin condition.
- 3-3.23 Explain the reason for prioritizing a patient for care and transport.
- 3-3.24 Identify patients who require expeditious transport.
- 3-3.25 Describe orthostatic vital signs and evaluate their usefulness in assessing a patient in shock.
- 3-3.26 Apply the techniques of physical examination to the medical patient.
- 3-3.27 Differentiate between the assessment that is performed for a patient who is has an altered mental status and other medical patients.
- 3-3.28 Discuss the reasons for reconsidering the mechanism of injury.
- 3-3.29 State the reasons for performing a rapid trauma assessment.
- 3-3.30 Recite examples and explain why patients should receive a rapid trauma assessment.
- 3-3.31 Apply the techniques of physical examination to the trauma patient.
- 3-3.32 Describe the areas included in the rapid trauma assessment and discuss what should be evaluated.
- 3-3.33 Differentiate cases when the rapid assessment may be altered in order to provide patient care.
- 3-3.34 Discuss the reason for performing a focused history and physical exam.
- 3-3.35 Describe when and why a detailed physical examination is necessary.
- 3-3.36 Discuss the components of the detailed physical exam in relation to the techniques of examination.
- 3-3.37 State the areas of the body that are evaluated during the detailed physical exam.
- 3-3.38 Explain what additional care should be provided while performing the detailed physical exam.
- 3-3.39 Distinguish between the detailed physical exam that is performed on a trauma patient and that of the medical patient.
- 3-3.40 Differentiate between patients requiring a detailed physical exam from those who do not.

- 3-3.41 Discuss the reasons for repeating the initial assessment as part of the on-going assessment.
- 3-3.42 Describe the components of the on-going assessment.
- 3-3.43 Describe the trending of assessment components.
- 3-3.44 Discuss medical identification devices/ systems.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 3-3.45 Explain the rationale for crew members to evaluate scene safety prior to entering.
- 3-3.46 Serve as a model for others explaining how patient situations affect your evaluation of mechanism of injury or illness.
- 3-3.47 Explain the importance of forming a general impression of the patient.
- 3-3.48 Explain the value of performing an initial assessment.
- 3-3.49 Demonstrate a caring attitude when performing an initial assessment.
- 3-3.50 Attend to the feelings that patients with medical conditions might be experiencing.
- 3-3.51 Value the need for maintaining a professional caring attitude when performing a focused history and physical examination.
- 3-3.52 Explain the rationale for the feelings that these patients might be experiencing.
- 3-3.53 Demonstrate a caring attitude when performing a detailed physical examination.
- 3-3.54 Explain the value of performing an on-going assessment.
- 3-3.55 Recognize and respect the feelings that patients might experience during assessment.
- 3-3.56 Explain the value of trending assessment components to other health professionals who assume care of the patient.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 3-3.57 Demonstrate the techniques for assessing mental status.
- 3-3.58 Demonstrate the techniques for assessing the airway.
- 3-3.59 Demonstrate the techniques for determining if the patient is breathing.
- 3-3.60 Demonstrate the techniques for determining if the patient has a pulse.
- 3-3.61 Demonstrate the techniques for determining the patient for external bleeding.
- 3-3.62 Demonstrate the techniques for determining the patient's skin color, temperature, and condition.
- 3-3.63 Using the techniques of examination, demonstrate the assessment of a medical patient.
- 3-3.64 Demonstrate the techniques for assessing a patient who is responsive with no known history.
- 3-3.65 Demonstrate the techniques for assessing a patient who has an altered mental status.
- 3-3.66 Perform a rapid medical assessment.
- 3-3.67 Perform a focused history and physical exam of the medical patient.
- 3-3.68 Using the techniques of physical examination, demonstrate the assessment of a trauma patient.
- 3-3.69 Demonstrate the rapid trauma assessment used to assess a patient based on mechanism of injury.
- 3-3.70 Perform a focused history and physical exam on a non-critically injured patient.
- 3-3.71 Perform a focused history and physical exam on a patient with life-threatening injuries.
- 3-3.72 Perform a detailed physical examination.
- 3-3.73 Demonstrate the skills involved in performing the on-going assessment.

### **UNIT TERMINAL OBJECTIVE**

- 3-5 At the completion of this unit, the EMT-Intermediate student will be able to follow an accepted format for the dissemination of patient information in verbal form, either in person or over the radio.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 3-5.1 Identify the importance of communications when providing EMS.
- 3-5.2 Identify the role of verbal, written, and electronic communications in the provision of EMS.
- 3-5.3 Describe the phases of communications necessary to complete a typical EMS event.
- 3-5.4 Identify the importance of proper terminology when communicating during an EMS event.
- 3-5.5 Identify the importance of proper verbal communications during an EMS event.
- 3-5.6 List factors that impede effective verbal communications.
- 3-5.7 List factors which enhance verbal communications.
- 3-5.8 Identify the importance of proper written communications during an EMS event.
- 3-5.9 List factors which impede effective written communications.
- 3-5.10 List factors which enhance written communications.

- 3-5.11 Recognize the legal status of written communications related to an EMS event.
- 3-5.12 State the importance of data collection during an EMS event.
- 3-5.13 Identify technology used to collect and exchange patient and/ or scene information electronically.
- 3-5.14 Recognize the legal status of patient medical information exchanged electronically.
- 3-5.15 Identify and differentiate among the following communications systems:
  - a. Simplex
  - b. Multiplex
  - c. Duplex
  - d. Trunked
  - e. Digital communications
  - f. Cellular telephone
  - g. Facsimile
  - h. Computer
- 3-5.16 Identify the components of the local dispatch communications system and describe their function and use.
- 3-5.17 Describe the functions and responsibilities of the Federal Communications Commission.
- 3-5.18 Describe how the Emergency Medical Dispatcher functions as an integral part of the EMS team.
- 3-5.19 List appropriate information to be gathered by the Emergency Medical Dispatcher.
- 3-5.20 Identify the role of Emergency Medical Dispatch in a typical EMS event.
- 3-5.21 Identify the importance of pre-arrival instructions in a typical EMS event.
- 3-5.22 Describe the procedure of verbal communication of patient information to the hospital.
- 3-5.23 Describe information that should be included in patient assessment information verbally reported to medical direction.
- 3-5.24 Diagram a basic model of communications.
- 3-5.25 Organize a list of patient assessment information in the correct order for electronic transmission to medical direction according to the format used locally.

### **AFFECTIVE OBJECTIVES**

At the end of this unit, the EMT-Intermediate student will be able to:

- 3-5.26 Show appreciation for proper terminology when describing a patient or patient condition.

### **PSYCHOMOTOR OBJECTIVES**

At the end of this unit, the EMT-Intermediate student will be able to:

- 3-5.27 Demonstrate the ability to use the local dispatch communications system.
- 3-5.28 Demonstrate the ability to use a radio.
- 3-5.29 Demonstrate the ability to use the biotelemetry equipment used locally.

### **UNIT TERMINAL OBJECTIVE**

- 4-2 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with hemorrhage or shock.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 4-2.1 Describe the epidemiology, including the morbidity, mortality and prevention strategies for shock and hemorrhage.
- 4-2.2 Discuss the various types and degrees of hemorrhage and shock.
- 4-2.3 Discuss the pathophysiology of hemorrhage and shock.
- 4-2.4 Discuss the assessment findings associated with hemorrhage and shock.
- 4-2.5 Identify the need for intervention and transport of the patient with hemorrhage or shock.
- 4-2.6 Discuss the treatment plan and management of hemorrhage and shock.
- 4-2.7 Discuss the management of external and internal hemorrhage.
- 4-2.8 Differentiate between controlled and uncontrolled hemorrhage.
- 4-2.9 Differentiate between the administration rate and amount of IV fluid in a patient with controlled versus uncontrolled hemorrhage.
- 4-2.10 Relate internal hemorrhage to the pathophysiology of compensated and decompensated hypovolemic shock.
- 4-2.11 Relate internal hemorrhage to the assessment findings of compensated and decompensated hypovolemic shock.
- 4-2.12 Describe the body's physiologic response to changes in perfusion.
- 4-2.13 Describe the effects of decreased perfusion at the capillary level.
- 4-2.14 Discuss the cellular ischemic phase related to hemorrhagic shock.

- 4-2.15 Discuss the capillary stagnation phase related to hypovolemic shock.
- 4-2.16 Discuss the capillary washout phase related to hypovolemic shock.
- 4-2.17 Discuss the assessment findings of hypovolemic shock.
- 4-2.18 Relate pulse pressure changes to perfusion status.
- 4-2.19 Define compensated and decompensated shock.
- 4-2.20 Discuss the pathophysiological changes associated with compensated shock.
- 4-2.21 Discuss the assessment findings associated with compensated shock.
- 4-2.22 Identify the need for intervention and transport of the patient with compensated shock.
- 4-2.23 Discuss the treatment plan and management of compensated shock.
- 4-2.24 Discuss the pathophysiological changes associated with decompensated shock.
- 4-2.25 Discuss the assessment findings associated with decompensated shock.
- 4-2.26 Identify the need for intervention and transport of the patient with decompensated shock.
- 4-2.27 Discuss the treatment plan and management of the patient with decompensated shock.
- 4-2.28 Differentiate between compensated and decompensated shock.
- 4-2.29 Relate external hemorrhage to the pathophysiology of compensated and decompensated hypovolemic shock.
- 4-2.30 Relate external hemorrhage to the assessment findings of compensated and decompensated hypovolemic shock.
- 4-2.31 Differentiate between the normotensive, hypotensive, and profoundly hypotensive patient.
- 4-2.32 Differentiate between the administration of fluid in the normotensive, hypotensive, and profoundly hypotensive patient.
- 4-2.33 Discuss the physiologic changes associated with the pneumatic anti-shock garment (PASG).
- 4-2.34 Discuss the indications and contraindications for the application and inflation of the PASG.
- 4-2.35 Apply epidemiology to develop prevention strategies for hemorrhage and shock.
- 4-2.36 Integrate the pathophysiological principles to the assessment of a patient with hemorrhage or shock.
- 4-2.37 Synthesize assessment findings and patient history information to form a field impression for the patient with hemorrhage or shock.
- 4-2.38 Develop, execute, and evaluate a treatment plan based on the field impression for the hemorrhage or shock patient.
- 4-2.39 Differentiate between the management of compensated and decompensated shock.

#### **AFFECTIVE OBJECTIVES**

None identified for this unit.

#### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 4-2.40 Demonstrate the assessment of a patient with signs and symptoms of hypovolemic shock.
- 4-2.41 Demonstrate the management of a patient with signs and symptoms of hypovolemic shock.
- 4-2.42 Demonstrate the assessment of a patient with signs and symptoms of compensated hypovolemic shock.
- 4-2.43 Demonstrate the management of a patient with signs and symptoms of compensated hypovolemic shock.
- 4-2.44 Demonstrate the assessment of a patient with signs and symptoms of decompensated hypovolemic shock.
- 4-2.45 Demonstrate the management of a patient with signs and symptoms of decompensated hypovolemic shock.
- 4-2.46 Demonstrate the assessment of a patient with signs and symptoms of external hemorrhage.
- 4-2.47 Demonstrate the management of a patient with signs and symptoms of external hemorrhage.
- 4-2.48 Demonstrate the assessment of a patient with signs and symptoms of internal hemorrhage.
- 4-2.49 Demonstrate the management of a patient with signs and symptoms of internal hemorrhage.

#### **UNIT TERMINAL OBJECTIVE**

- 5-1 At the end of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with respiratory emergencies.

#### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate will be able to:

- 5-1.1 Identify and describe the function of the structures located in the upper and lower airway.
- 5-1.2 Discuss the physiology of ventilation and respiration.
- 5-1.3 Identify common pathological events that affect the pulmonary system.
- 5-1.4 Discuss abnormal assessment findings associated with pulmonary diseases and conditions.
- 5-1.5 Compare various airway and ventilation techniques used in the management of pulmonary diseases.
- 5-1.6 Review the pharmacological preparations that EMT-Intermediates use for management of respiratory diseases and conditions.
- 5-1.7 Review the use of equipment used during the physical examination of patients with complaints associated with respiratory diseases and conditions.
- 5-1.8 Describe the epidemiology, pathophysiology, assessment findings, and management for the following respiratory

diseases and conditions:

- a. Bronchial asthma
- b. Chronic bronchitis
- c. Emphysema
- d. Pneumonia
- e. Pulmonary edema
- f. Spontaneous pneumothorax
- g. Hyperventilation syndrome
- h. Pulmonary thromboembolism

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate will be able to:

- 5-1.9 Recognize and value the assessment and treatment of patients with respiratory diseases.
- 5-1.10 Indicate appreciation for the critical nature of accurate field impressions of patients with respiratory diseases and conditions.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the EMT-Intermediate will be able to:

- 5-1.11 Demonstrate and record pertinent assessment findings associated with pulmonary diseases and conditions.
- 5-1.12 Review proper use of airway and ventilation devices.
- 5-1.13 Conduct a simulated history and patient assessment, record the findings, and report appropriate management of patients with pulmonary diseases and conditions.

### **UNIT TERMINAL OBJECTIVE**

- 5-2 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression, implement and evaluate the management plan for the patient experiencing a cardiac emergency.

### **COGNITIVE OBJECTIVES**

At the completion to this unit, the EMT-Intermediate student will be able to:

- 5-2.1 Describe the incidence, morbidity, and mortality of cardiovascular disease.
- 5-2.2 Review cardiovascular anatomy and physiology.
- 5-2.3 Discuss prevention strategies that may reduce morbidity and mortality of cardiovascular disease.
- 5-2.4 Identify the risk factors most predisposing to coronary artery disease.
- 5-2.5 Identify and describe the components of assessment as it relates to the patient with cardiovascular compromise.
- 5-2.6 Describe how ECG wave forms are produced.
- 5-2.7 Correlate the electrophysiological and hemodynamic events occurring throughout the entire cardiac cycle with the various ECG wave forms, segments and intervals.
- 5-2.8 Identify how heart rates may be determined from ECG recordings.
- 5-2.9 List the limitations to the ECG.
- 5-2.10 Describe a systematic approach to the analysis and interpretation of cardiac arrhythmias.
- 5-2.11 Explain how to confirm asystole using more than one lead.
- 5-2.12 List the clinical indications for defibrillation.
- 5-2.12a Describe the treatment plan for a patient in pulseless ventricular tachycardia or ventricular fibrillation.
- 5-2.13 Identify the specific mechanical, pharmacological and electrical therapeutic interventions for patients with arrhythmias causing compromise.
- 5-2.14 List the clinical indications for an implanted defibrillation device.
- 5-2.15 Define angina pectoris and myocardial infarction (MI).
- 5-2.16 List other clinical conditions that may mimic signs and symptoms of angina pectoris and myocardial infarction.
- 5-2.17 List the mechanisms by which an MI may be produced by traumatic and non-traumatic events.
- 5-2.18 List and describe the assessment parameters to be evaluated in a patient with chest pain.
- 5-2.19 Identify what is meant by the OPQRST of chest pain assessment.
- 5-2.20 List and describe the initial assessment parameters to be evaluated in a patient with chest pain that may be myocardial in origin.
- 5-2.21 Identify the anticipated clinical presentation of a patient with chest pain that may be angina pectoris or myocardial infarction.
- 5-2.22 Describe the pharmacological agents available to the EMT-Intermediate for use in the management of arrhythmias and cardiovascular emergencies.

- 5-2.23 Develop, execute, and evaluate a treatment plan based on the field impression for the patient with chest pain that may be indicative of angina or myocardial infarction.
- 5-2.24 Define the terms "congestive heart failure" and pulmonary edema.
- 5-2.25 Define the cardiac and non-cardiac causes and terminology associated with congestive heart failure and pulmonary edema.
- 5-2.26 Describe the early and late signs and symptoms of pulmonary edema.
- 5-2.27 Explain the clinical significance of paroxysmal nocturnal dyspnea.
- 5-2.28 List and describe the pharmacological agents available to the EMT-Intermediate for use in the management of a patient with cardiac compromise.
- 5-2.29 Define the term A hypertensive emergency.
- 5-2.30 Describe the clinical features of the patient in a hypertensive emergency.
- 5-2.31 List the interventions prescribed for the patient with a hypertensive emergency.
- 5-2.32 Define the term "cardiogenic shock."
- 5-2.33 Identify the clinical criteria for cardiogenic shock.
- 5-2.34 Define the term "cardiac arrest."
- 5-2.35 Define the term "resuscitation."
- 5-2.36 Identify local protocol dictating circumstances and situations where resuscitation efforts would not be initiated.
- 5-2.37 Identify local protocol dictating circumstances and situations where resuscitation efforts would be discontinued.
- 5-2.38 Identify the critical actions necessary in caring for the patient in cardiac arrest.
- 5-2.39 Synthesize patient history, assessment findings to form a field impression for the patient with chest pain and cardiac arrhythmias that may be indicative of a cardiac emergency.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit the EMT-Intermediate will be able to:

- 5-2.40 Value the sense of urgency for initial assessment and intervention as it contributes to the treatment plan for the patient experiencing a cardiac emergency.
- 5-2.41 Defend patient situations where ECG rhythm analysis is indicated.
- 5-2.42 Value and defend the sense of urgency necessary to protect the window of opportunity for reperfusion in the patient with chest pain and arrhythmias that may be indicative of angina or myocardial infarction.
- 5-2.43 Value and defend the urgency in rapid determination and rapid intervention of patients in cardiac arrest.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit the EMT-Intermediate will be able to:

- 5-2.44 Demonstrate a working knowledge of various ECG lead systems.
- 5-2.45 Set up and apply a transcutaneous pacing system.
- 5-2.46 Given the model of a patient with signs and symptoms of pulmonary edema, position the patient to afford comfort and relief. (P-2 )
- 5-2.47 Assess, determine treatment plan and implement treatment plan for patients with:
  - a. angina pectoris
  - b. myocardial infarction
  - c. pulseless-not breathing

### **UNIT TERMINAL OBJECTIVE**

- 5-3 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement a treatment plan for the patient with a diabetic emergency.

### **COGNITIVE OBJECTIVE**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 5-3.1 Describe the pathophysiology of diabetes mellitus.
- 5-3.2 Describe the effects of decreased levels of insulin on the body.
- 5-3.3 Correlate abnormal findings in assessment with clinical significance in the patient with a diabetic emergency.
- 5-3.4 Discuss the management of diabetic emergencies.
- 5-3.5 Describe the mechanism of ketone body formation and its relationship to ketoacidosis.
- 5-3.6 Describe the effects of decreased levels of insulin on the body.
- 5-3.7 Discuss the pathophysiology of hypoglycemia.
- 5-3.8 Recognize the signs and symptoms of the patient with hypoglycemia.
- 5-3.9 Describe the management of a hypoglycemic patient.



- 5-3.10 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with hypoglycemia.
- 5-3.11 Discuss the pathophysiology of hyperglycemia.
- 5-3.12 Recognize the signs and symptoms of the patient with hyperglycemia.
- 5-3.13 Describe the management of the hyperglycemic patient.
- 5-3.14 Differentiate between diabetic emergencies based on assessment and history.
- 5-3.15 Correlate abnormal findings in the assessment with clinical significance in the patient with a diabetic emergencies.
- 5-3.16 Develop a patient management plan based on field impression in the patient with a diabetic emergency.

#### **AFFECTIVE OBJECTIVES**

None identified for this unit.

#### **PSYCHOMOTOR OBJECTIVES**

- 3-3.17 Development and implement treatment plan for a diabetic patient.

#### **UNIT TERMINAL OBJECTIVE**

- 5-4 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement a treatment plan for the patient with an allergic or anaphylactic reaction.

#### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 5-4.1 Define allergic reaction.
- 5-4.2 Define anaphylaxis.
- 5-4.3 Define allergens.
- 5-4.4 Describe the common methods of entry of substances into the body.
- 5-4.5 List common antigens most frequently associated with anaphylaxis.
- 5-4.6 Describe physical manifestations in anaphylaxis.
- 5-4.7 Recognize the signs and symptoms related to anaphylaxis.
- 5-4.8 Differentiate among the various treatment and pharmacological interventions used in the management of anaphylaxis.
- 5-4.9 Integrate the pathophysiological principles of the patient with anaphylaxis.
- 5-4.10 Correlate abnormal findings in assessment with the clinical significance in the patient with anaphylaxis.
- 5-4.11 Develop a treatment plan based on field impression in the patient with allergic reaction and anaphylaxis.

#### **AFFECTIVE OBJECTIVES**

None identified for this unit.

#### **PSYCHOMOTOR OBJECTIVES**

- 5-4.12 Development and implement treatment plan for a patient in anaphylaxis.

#### **UNIT TERMINAL OBJECTIVE**

- 5-5 At the completion of this unit, the EMT-Intermediate student will be able to utilize assessment findings to formulate a field impression and implement a treatment plan for the patient with a toxic exposure.

#### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 5-5.1 Identify appropriate personal protective equipment and scene safety awareness concerns in dealing with toxicologic emergencies.
- 5-5.2 Identify the appropriate situations in which additional non-EMS resources need to be contacted.
- 5-5.3 Review the routes of entry of toxic substances into the body.
- 5-5.4 Discuss the role of the Poison Control Center in the United States.
- 5-5.5 List the toxic substances that are specific to your region.
- 5-5.6 Identify the need for rapid intervention and transport of the patient with a toxic substance emergency.
- 5-5.7 Review the management of toxic substances.
- 5-5.8 Differentiate among the various treatments and pharmacological interventions in the management of the most common poisonings by inhalation, ingestion, absorption, and injection.
- 5-5.9 Utilize assessment findings to formulate a field impression and implement a treatment plan for patients with the

**most common poisonings by inhalation, ingestion, absorption, and injection.**

5-5.10 Review poisoning by overdose.

5-5.11 Review the signs and symptoms related to the most common poisonings by overdose.

5-5.12 Correlate the abnormal findings in assessment with the clinical significance in patients with the most common poisonings by overdose.

**5-5.13 Differentiate among the various treatments and pharmacological interventions in the management of the most common poisonings by overdose.**

5-5.14 Utilize assessment findings to formulate a field impression and implement a treatment plan for patients with the most common poisonings by overdose.

### **AFFECTIVE OBJECTIVES**

5-5.15 Appreciate the psychological needs of victims of drug abuse or overdose.

### **PSYCHOMOTOR OBJECTIVES**

5-5.16 Development and implement treatment plan for a patient with drug overdose.

### **UNIT TERMINAL OBJECTIVE**

- 6-3 At the completion of this unit, the EMT-Intermediate student will be able utilize assessment findings to formulate a field impression and implement the treatment plan for a pediatric patient.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 6-3.1 Identify methods/ mechanisms that prevent injuries to infants and children. (C-1)
- 6-3.2 Identify the growth and developmental characteristics of infants and children. (C-2)
- 6-3.3 Identify anatomy and physiology characteristics of infants and children. (C-2)
- 6-3.4 Describe techniques for successful assessment of infants and children. (C-1)
- Identify the common responses of families to acute illness and injury of an infant or child. (C-1)
- 6-3.5 Describe techniques for successful interaction with families of acutely ill or injured infants and children. (C-1)
- 6-3.6 Outline differences in adult and childhood anatomy and physiology. (C-3)
- 6-3.7 Discuss pediatric patient assessment. (C-1)
- 6-3.8 Identify "normal" age group related vital signs. (C-1)
- 6-3.9 Discuss the appropriate equipment utilized to obtain pediatric vital signs. (C-1)
- 6-3.10 Determine appropriate airway adjuncts for infants and children. (C-1)
- 6-3.11 Discuss complications of improper utilization of airway adjuncts with infants and children. (C-1)
- 6-3.12 Discuss appropriate ventilation devices for infants and children. (C-1)
- 6-3.13 Discuss complications of improper utilization of ventilation devices with infants and children. (C-1)
- 6-3.14 Discuss appropriate endotracheal intubation equipment for infants and children. (C-1)
- 6-3.15 Identify complications of improper endotracheal intubation procedure in infants and children. (C-1)
- 6-3.16 Define respiratory distress. (C-1)
- 6-3.17 Define respiratory failure. (C-1)
- 6-3.18 Define respiratory arrest. (C-1)
- 6-3.19 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for respiratory distress/ failure in infants and children. (C-1)
- 6-3.20 Discuss the pathophysiology of respiratory distress/ failure in infants and children. (C-1)
- 6-3.21 Discuss the assessment findings associated with respiratory distress/ failure in infants and children. (C-1)
- 6-3.22 Discuss the management/ treatment plan for respiratory distress/ failure in infants and children. (C-1)
- 6-3.23 List the indications for gastric decompression for infants and children. (C-1)
- 6-3.24 Differentiate between upper and lower airway obstruction. (C-2)
- 6-3.25 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for croup in infants and children. (C-1)
- 6-3.26 Discuss the pathophysiology of croup in infants and children. (C-1)
- 6-3.27 Discuss the assessment findings associated with croup in infants and children. (C-1)
- 6-3.28 Discuss the management/ treatment plan for croup in infants and children. (C-1)
- 6-3.29 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for foreign body aspiration in infants and children. (C-1)
- 6-3.30 Discuss the pathophysiology of foreign body aspiration in infants and children. (C-1)
- 6-3.31 Discuss the assessment findings associated with foreign body aspiration in infants and children. (C-1)
- 6-3.32 Discuss the management/ treatment plan for foreign body aspiration in infants and children. (C-1)
- 6-3.33 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for epiglottitis in infants and children. (C-1)
- 6-3.34 Discuss the pathophysiology of epiglottitis in infants and children. (C-1)
- 6-3.35 Discuss the assessment findings associated with epiglottitis in infants and children. (C-1)

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- 6-3.36 Discuss the management/ treatment plan for epiglottitis in infants and children. (C-1)
  - 6-3.37 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for asthma/bronchiolitis in infants and children. (C-1)
  - 6-3.38 Discuss the pathophysiology of asthma/bronchiolitis in infants and children. (C-1)
  - 6-3.39 Discuss the assessment findings associated with asthma/bronchiolitis in infants and children. (C-1)
  - 6-3.40 Discuss the management/ treatment plan for asthma/bronchiolitis in infants and children. (C-1)
  - 6-3.41 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for pneumonia in infants and children. (C-1)
  - 6-3.42 Discuss the pathophysiology of pneumonia in infants and children. (C-1)
  - 6-3.43 Discuss the assessment findings associated with pneumonia in infants and children. (C-1)
  - 6-3.44 Discuss the management/ treatment plan for pneumonia in infants and children. (C-1)
  - 6-3.45 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for foreign body lower airway obstruction in infants and children. (C-1)
  - 6-3.46 Discuss the pathophysiology of foreign body lower airway obstruction in infants and children. (C-1)
  - 6-3.47 Discuss the assessment findings associated with foreign body lower airway obstruction in infants and children. (C-1)
  - 6-3.48 Discuss the management/ treatment plan for foreign body lower airway obstruction in infants and children. (C-1)
  - 6-3.49 Discuss the common causes of shock in infants and children. (C-1)
  - 6-3.50 Evaluate the severity of shock in infants and children. (C-3)
  - 6-3.51 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for shock in infants and children. (C-1)
  - 6-3.52 Discuss the pathophysiology of shock in infants and children. (C-1)
  - 6-3.53 Discuss the assessment findings associated with shock in infants and children. (C-1)
  - 6-3.54 Discuss the management/ treatment plan for shock in infants and children. (C-1)
  - 6-3.55 Identify the major classifications of pediatric cardiac rhythms. (C-1)
  - 6-3.56 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for cardiac dysrhythmias in infants and children. (C-1)
  - 6-3.57 Discuss the pathophysiology of cardiac dysrhythmias in infants and children. (C-1)
  - 6-3.58 Discuss the assessment findings associated with cardiac dysrhythmias in infants and children. (C-1)
  - 6-3.59 Discuss the management/ treatment plan for cardiac dysrhythmias in infants and children. (C-1)
  - 6-3.60 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for tachydysrhythmias in infants and children. (C-1)
  - 6-3.61 Discuss the pathophysiology of tachydysrhythmias in infants and children. (C-1)
  - 6-3.62 Discuss the assessment findings associated with tachydysrhythmias in infants and children. (C-1)
  - 6-3.63 Discuss the management/ treatment plan for tachydysrhythmias in infants and children. (C-1)
  - 6-3.64 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for bradydysrhythmias in infants and children. (C-1)
  - 6-3.65 Discuss the pathophysiology of bradydysrhythmias in infants and children. (C-1)
  - 6-3.66 Discuss the assessment findings associated with bradydysrhythmias in infants and children. (C-1)
  - 6-3.67 Discuss the management/ treatment plan for bradydysrhythmias in infants and children. (C-1)
  - 6-3.68 Discuss the primary etiologies of cardiopulmonary arrest in infants and children. (C-1)
  - 6-3.69 Discuss basic cardiac life support (CPR) guidelines for infants and children. (C-1)
  - 6-3.70 Identify appropriate parameters for performing infant and child CPR. (C-1)
  - 6-3.71 Integrate advanced life support skills with basic cardiac life support for infants and children. (C-3)
  - 6-3.72 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for seizures in infants and children. (C-1)
  - 6-3.73 Discuss the pathophysiology of seizures in infants and children. (C-1)
  - 6-3.74 Discuss the assessment findings associated with seizures in infants and children. (C-1)

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- 6-3.75 Discuss the management/ treatment plan for seizures in infants and children. (C-1)
  - 6-3.76 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for hypoglycemia in infants and children. (C-1)
  - 6-3.77 Discuss the pathophysiology of hypoglycemia in infants and children. (C-1)
  - 6-3.78 Discuss the assessment findings associated with hypoglycemia in infants and children. (C-1)
  - 6-3.79 Discuss the management/ treatment plan for hypoglycemia in infants and children. (C-1)
  - 6-3.80 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for hyperglycemia in infants and children. (C-1)
  - 6-3.81 Discuss the pathophysiology of hyperglycemia in infants and children. (C-1)
  - 6-3.82 Discuss the assessment findings associated with hyperglycemia in infants and children. (C-1)
  - 6-3.83 Discuss the management/ treatment plan for hyperglycemia in infants and children. (C-1)
  - 6-3.84 Discuss age appropriate vascular access sites for infants and children. (C-1)
  - 6-3.85 Discuss the appropriate equipment for vascular access in infants and children. (C-1)
  - 6-3.86 Identify complications of vascular access for infants and children. (C-1)
  - 6-3.87 Identify common lethal mechanisms of injury in infants and children. (C-1)
  - 6-3.88 Discuss anatomical features of children that predispose or protect them from certain injuries. (C-1)
  - 6-3.89 Describe aspects of infant and children airway management that are affected by potential cervical spine injury. (C-1)
  - 6-3.90 Identify infant and child trauma patients who require spinal immobilization. (C-1)
  - 6-3.91 Discuss fluid management and shock treatment for infant and child trauma patient. (C-1)
  - 6-3.92 Discuss the pathophysiology of trauma in infants and children. (C-1)
  - 6-3.93 Discuss the assessment findings associated with trauma in infants and children. (C-1)
  - 6-3.94 Discuss the management/ treatment plan for trauma in infants and children. (C-1)
  - 6-3.95 Discuss the assessment findings and management considerations for pediatric trauma patients with the following specific injuries: head/neck injuries, chest injuries, abdominal injuries, extremities injuries, burns.
  - 6-3.96 Define child abuse. (C-1)
  - 6-3.97 Define child neglect. (C-1)
  - 6-3.98 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for abuse and neglect in infants and children. (C-1)
  - 6-3.99 Discuss the assessment findings associated with abuse and neglect in infants and children. (C-1)
  - 6-3.100 Discuss the management/ treatment plan for abuse and neglect in infants and children. (C-1)
  - 6-3.101 Define sudden infant death syndrome (SIDS). (C-1)
  - 6-3.102 Discuss the parent/ caregiver responses to the death of an infant or child. (C-1)
  - 6-3.103 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for SIDS infants. (C-1)
  - 6-3.104 Discuss the pathophysiology of SIDS in infants. (C-1)
  - 6-3.105 Discuss the assessment findings associated with SIDS infants. (C-1)
  - 6-3.106 Discuss the management/ treatment plan for SIDS in infants. (C-1)

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-2.107 Demonstrate and advocate appropriate interactions with the infant/ child that conveys an understanding of their developmental stage. (A-3)
- 6-2.108 Recognize the emotional dependence of the infant/ child to their parent/ guardian. (A-1)
- 6-2.109 Recognize the emotional impact of the infant/ child injuries and illnesses on the parent/ guardian. (A-1)
- 6-2.110 Recognize and appreciate the physical and emotional difficulties associated with separation of the parent/ guardian of a special needs child (A-3)

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6-2.111 Demonstrate the ability to provide reassurance, empathy and compassion for the parent/ guardian. (A-1)

**PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 6-3.112 Demonstrate the appropriate approach for treating infants and children. (P-2)
- 6-3.113 Demonstrate appropriate intervention techniques with families of acutely ill or injured infants and children. (P-2)
- 6-3.114 Demonstrate an appropriate assessment for different developmental age groups. (P-2)
- 6-3.115 Demonstrate appropriate technique for measuring pediatric vital signs. (P-2)
- 6-3.116 Demonstrate the use of a length-based resuscitation device for determining equipment sizes, drug doses and other pertinent information for a pediatric patient. (P-2)
- 6-3.117 Demonstrate the techniques/ procedures for treating infants and children with respiratory distress. (P-2)
- 6-3.118 Demonstrate proper technique for administering blow-by oxygen to infants and children. (P-2)
- 6-3.119 Demonstrate the proper utilization of a pediatric non-rebreather oxygen mask. (P-2)
- 6-3.120 Demonstrate appropriate use of airway adjuncts with infants and children. (P-2)
- 6-3.121 Demonstrate appropriate use of ventilation devices for infants and children. (P-2)
- 6-3.122 Demonstrate endotracheal intubation procedures in infants and children. (P-2)
- 6-3.123 Demonstrate appropriate treatment/ management of intubation complications for infants and children. (P-2)
- 6-3.124 Demonstrate proper placement of a gastric tube in infants and children. (P-2)
- 6-3.125 Demonstrate appropriate technique for insertion of peripheral intravenous catheters for infants and children. (P-2)
- 6-3.126 Demonstrate appropriate technique for administration of intramuscular, subcutaneous, rectal, endotracheal and oral medication for infants and children. (P-2)
- 6-3.127 Demonstrate appropriate technique for insertion of an intraosseous line for infants and children. (P-2)
- 6-3.128 Demonstrate age appropriate interventions for infants and children with an obstructed airway. (P-2)
- 6-3.129 Demonstrate appropriate airway control maneuvers for infant and child trauma patients. (P-2)
- 6-3.130 Demonstrate appropriate treatment of infants and children requiring advanced airway and breathing control. (P-2)
- 6-3.131 Demonstrate appropriate immobilization techniques for infant and child trauma patients. (P-2)
- 6-3.132 Demonstrate treatment of infants and children with head injuries. (P-2)
- 6-3.133 Demonstrate appropriate treatment of infants and children with chest injuries. (P-2)
- 6-3.134 Demonstrate appropriate treatment of infants and children with abdominal injuries. (P-2)
- 6-3.135 Demonstrate appropriate treatment of infants and children with extremity injuries. (P-2)
- 6-3.136 Demonstrate appropriate treatment of infants and children with burns. (P-2)
- 6-3.137 Demonstrate appropriate parent/ caregiver interviewing techniques for infant and child death situations. (P-2)
- 6-3.138 Demonstrate proper infant CPR. (P-2)
- 6-3.139 Demonstrate proper child CPR. (P-2)
- 6-3.140 Demonstrate proper techniques for performing infant and child defibrillation. (P-2)